# Article information:

Protein Engineering in the Ubiquitin System: Tools for Discovery and Beyond | Pharmacological Reviews  
<https://pharmrev.aspetjournals.org/content/72/2/380>

# Article summary:

1. Ubiquitin (UB) transfer cascades are complex networks that regulate a variety of biological processes by modifying protein substrates.

2. Dysregulation of UB transfer pathways and malfunctions of DUBs and UBDs can lead to the development of many diseases.

3. Protein engineering approaches such as unnatural amino acid incorporation, expressed protein ligation, and high throughput selection have been used to map, probe, and manipulate UB transfer in the cell.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article is generally reliable and trustworthy in its presentation of the topic at hand. The authors provide a comprehensive overview of the ubiquitin system, its role in regulating various biological processes, and how protein engineering has been used to map, probe, and manipulate it. The article is well-referenced with numerous citations from peer-reviewed journals which adds to its credibility. Furthermore, the authors provide an unbiased view on the topic without any promotional content or partiality towards any particular viewpoint or opinion.

However, there are some points that could be improved upon in terms of trustworthiness and reliability. For example, while the authors discuss potential applications for protein engineering in therapeutic intervention, they do not explore any possible risks associated with this approach or present both sides equally when discussing potential benefits versus drawbacks. Additionally, there is no mention of unexplored counterarguments or missing points of consideration which could be addressed in future research on this topic.

# Topics for further research:

* Protein engineering risks
* Ubiquitin system therapeutic intervention
* Potential drawbacks of protein engineering
* Unexplored counterarguments to protein engineering
* Missing points of consideration for ubiquitin system
* Therapeutic applications of ubiquitin system

# Report location:

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